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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,900	06/27/2003	Yoshihiro Hamakawa	HAMA3002D/BEU	5027
23364	7590	06/19/2007	EXAMINER	
BACON & THOMAS, PLLC			RAO, G NAGESH	
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FOURTH FLOOR				
ALEXANDRIA, VA 22314				
			ART UNIT	PAPER NUMBER
			1722	
			MAIL DATE	DELIVERY MODE
			06/19/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/606,900	<b>Applicant(s)</b> HAMAKAWA ET AL.	
	<b>Examiner</b> G. Nagesh Rao	<b>Art Unit</b> 1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 51-78 is/are pending in the application.
- 4a) Of the above claim(s) 51-70, 73 and 75-78 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 71, 72 and 74 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Election/Restrictions***

1) Applicant's election without traverse of claims 71-74 in the reply filed on 3/27/07 is acknowledged.

Claims 51-70 and 75-78 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3/27/07.

Examiner further acknowledges applicant's election of species Group I as denoted generic via claim 72 and therefore claims 71-72, and 74 will be examined. Therefore in the reply filed on 3/27/07, election species Group II claim 73 is withdrawn without traverse in the interim for consideration.

***Priority***

2) Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 11/24/2000 and 03/30/2001. It is noted, however, that applicant has not filed a certified copy of the foreign priority patent application as required by 35 U.S.C. 119(b).

***Claim Objections***

3) Claim 72 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 72 is multiply dependent on claims 69 or 71, having set forth claim 69 is withdrawn via election by applicant for consideration, claim 72 is requested to be corrected by applicant.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C.

112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4) Claim 71 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 71 refers to the crystallizing step whereby the “heating liquid or solid particles existing in a vapor phase by crystallizing means...”. Examiner is a bit unclear whether the particles exist in vapor phase prior or after the

solid/liquid stage, or go into vapor phase as a result of the crystallizing means, or the particles are in vapor phase as solid or liquid which is scientifically impossible. Applicant is advised to clarify the scope of this claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5) Claims 71-74 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakata (WO 99/22048).

Examiner would like to point that the rejection being made is utilizing Nakata (US Patent No. 6,153,007) as an English equivalence to Nakata (WO 99/22048).

Nakata 007 teaches a spherical semiconductor particles mass-producing method that includes a crystallizing step for heating liquid or solid particles that may exist prior in raw form as a vapor phase whereby crystallizing means being that of a laser source thereby converts the particles

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into single-crystal or polycrystalline spherical particles and whereby the laser source heats the particles such that it is capable of allowing for a cooling rate of the particles to have a gentle profile, to thereby prevent development of cracks in the particles and prevent the particles from becoming amorphous (See Abstract, Cols 1-15 Lines 1-68, Figs 1-6, in specific Figs 1 and 4, and Cols 1 Lines 15-26, Col 2 Lines 28-68, Col 3 Lines 32-60, Col 6-7 Lines 1-68).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to G. Nagesh Rao whose telephone number is (571) 272-2946. The examiner can normally be reached on 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571)272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GNR

DUANE SMITH  
PRIMARY EXAMINER  
D-A  
6-11-07